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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,183	09/09/2003	Homan B. Kinsley JR.	013400-197	1627

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EXAMINER

FORTUNA, JOSE A

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/657,183	Applicant(s) KINSLEY, HOMAN B.	
	Examiner José A. Fortuna	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/04;2/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The term "minor" in claim 7 is a relative term, which renders the claim indefinite. The term "minor" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claim is vague and indefinite as to what amount would/could be considered "minor."

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-4, 12,14-15 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kinsley, Jr., US Patent Nos. 5,800,675 or 5,498,314, referred hereafter as US'675 and US'375.

Kinsley, Jr., in both US Patents above, teaches a paper and process of making the same, using a mixture of cellulosic fibers and synthetic fibers and a polyvinyl alcohol, (PVA),

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binder, see abstracts. Kinsley, Jr. teaches the use of polyamides fibers and/or fibrids in the pulp mixture, see column 4, line 66 through column 5, line 15 of the US'675 reference and column 5, lines 1-18 of the US'375. Note that the paper of the cited reference, Kinsley, Jr., which comprises cellulosic and synthetic fibers, can be inherently used for the same purpose as claimed, i.e., high temperature transformer sheets or as part of a transformer. Note also that Kinsley, Jr. papers are made using the wet laying technique, see abstracts. It seems that Kinsley, Jr. teaches all the elements of the above claims or at least the minor modification(s) to obtain the claimed invention would have been obvious to one of ordinary skill in the art.

6. Claims 1, 4, 12, 15 and 17 are rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention. Ramachandran et al., US Patent No. 5,833,807.

Ramachandran et al. teaches a paper made using an aramid dispersion including a aramid fibers and/or fibrids and a binder, see for example column 2, lines 18-35, column 3, lines 36-50. In example 5, column 5, Ramachandran et al. teach the combination/mixture of the aramid fibers and/or fibrids with cellulosic pulp/fibers, i.e., a cotton linter pulp, which reads in the claims as claimed.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 12 and 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sasaki et al., US Patent No. 4,398,995.

Sasaki et al. teach a paper product comprising aromatic polyamides, cellulosic fibers and a binder, see abstract and column 6, lines 38-68, see also examples. Note that the paper of the cited reference, which comprises cellulosic and synthetic fibers, can be inherently

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used for the same purpose as claimed, i.e., high temperature transformer sheets or as part of a transformer. It seems that Sasaki et al. teach all the elements of the above claims or at least the minor modification(s) to obtain the claimed invention would have been obvious to one of ordinary skill in the art.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramachandran et al., cited above in view of Miyamoto et al., US Patent No. 3,674,621.

Ramachandran et al. invention has been discussed above. Ramachandran et al. is silent with respect to the use of polyvinyl alcohol, (PVA), as the binder. However, Miyamoto et al. teaches that using PVA as binder in papers comprising synthetic fibers improves the paper, by improving its hydrophobicity, strength and other mechanical properties at the

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dry conditions, see column 1, lines 26-42. Therefore, using PVA as a binder as suggested by Miyamoto et al. in Ramachandran et al. invention would have been obvious to one of ordinary skill in the art in order to obtain the advantages discussed above, i.e., improve the mechanical properties of the paper.

11. Claims 2, 5-11, 13, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinsley, Jr., US'675 or US'375 or Ramachandran et al., all cited above as evidenced by Hendren et al., US Patent No. 4,886,578.

None of the cited references teach the multilayer as claimed, or the method of making such multilayered paper. However, laminated, multilayered papers are well known in the art, see for example d) of column 2 of Hendren et al., and therefore, the permutation of the different type of layers would be within the levels of ordinary skill in the art, absent a showing of unexpected results. Note also that using cylinder machines to make the different layers of the paper is well known in the art, see Kinsley, Jr. column 6, line 64 through column 7, line 14 of the US'675 and column 8, lines 8-16.

Conclusion


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure in the art of "Transformer Papers."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A. Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


José A Fortuna
Primary Examiner
Art Unit 1731

JAF